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jc600 U.S. PTO

PATENT
jc511 U.S. PTO
09/29/98
04/21/99

Attorney's Docket No.: U 012218-7

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of Inventor:

GI YONG YOO

WARNING: The Declaration must name all of the actual inventor(s).

For (title):
TOBACCO SUBSTITUTE COMPOSITION

1. Type of Application

This new application is for a(n) (check one applicable item below):

- ☒ Original (nonprovisional)
☐ Design
☐ Plant

WARNING: Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. 371(c)(4) unless the International Application is being filed as a divisional, continuation or continuation-in-part application.

WARNING: Do not use this transmittal for the filing of a provisional application.

CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that this New Application Transmittal and the documents referred to as enclosed therein are being deposited with the United States Postal Service on this date **APRIL 21, 1999** in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number **EE784103893US** addressed to the: Assistant Commissioner of Patents, Washington, D.C. 20231

DANIELLE JOHNSON

(type or print name of person mailing paper)

Danielle Johnson
(Signature of person mailing paper)

NOTE: Each paper or fee referred to as enclosed herein has the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 CFR 1.10(b).

WARNING: Certificate of mailing (first class) or facsimile transmission procedures of 37 CFR 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

2. Benefit of Prior U.S. Application(s) (35 U.S.C. 119(e), 120, or 121)

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach **ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED**.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. 120, 121 or 365(c). (35 U.S.C. 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. 119, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60 Fed. Reg. 20,195, at 20,205.

WARNING: When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional **must** be filed prior to the Saturday, Sunday or Federal holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3).

- ☐ The new application being transmitted claims the benefit of prior U.S. application(s) and enclosed are **ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED**.

NOTE: If one of the following 3 items apply, then complete and attach **ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED** and a **NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION**.

- ☐ Divisional.
☐ Continuation.
☐ Continuation-in-Part (C-I-P).

3. Papers Enclosed That Are Required For Filing Date Under 37 CFR 1.53 (Regular) or 37 CFR 1.153 (Design) Application

- 5 Pages of specification
 1 Pages of claims
 1 Pages of Abstract
 Sheets of drawing
☐ formal
☐ informal

WARNING: **DO NOT** submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. Comments on proposed new 37 CFR 1.84. Notice of March 9, 1988 (1990 O.G. 57-62).

NOTE: "Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm. (5/8 inch) down from the top of the page." 37 C.F.R. 1.84(c).

(complete the following, if applicable)

- ☐ The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)". 37 C.F.R. 1.84(b).

4. **Additional papers enclosed**

- ☐ Preliminary Amendment
- ☒ Information Disclosure Statement (37 CFR 1.98)
- ☒ Form PTO-1449
- ☒ Citations
- ☐ Declaration of Biological Deposit
- ☐ Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.
- ☐ Authorization of Attorney(s) to Accept and Follow Instructions from Representative
- ☐ Special Comments
- ☐ Other

5. **Declaration or oath**

- ☒ Enclosed
executed by *(check all applicable boxes)*
 - ☒ inventor.
 - ☐ legal representative of inventor. 37 CFR 1.42 or 1.43
 - ☐ joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.
 - ☐ This is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. *See item 13 below for fee.*
- ☐ Not Enclosed.

WARNING: *Where the filing is a completion in the U.S. of an International Application but where a declaration is not available or where the completion of the U.S. application contains subject matter in addition to the International Application the application may be treated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.*

- ☐ Application is made by a person authorized under 37 CFR 1.41(c) on behalf of *all the above named inventor*. (The declaration or oath, along with the surcharge required by 37 CFR 1.16(e) can be filed subsequently).

NOTE: *It is important that all the correct inventor(s) are named for filing under 37 CFR 1.41(c) and 1.53(b).*

- ☐ Showing that the filing is authorized. *(Not required unless called into question. 37 CFR 1.41(d).)*

6. **Inventorship Statement**

WARNING: *If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.*

The inventorship for all the claims in this application are:

- ☐ The same
- ☐ Not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made,

7. **Language**

NOTE: An application including a signed oath or declaration may be filed in a language other than English. A verified English translation of the non-English language application and the processing fee of \$130.00 required by 37 CFR 1.17(k) is required to be filed with the application or within such time as may be set by the Office. 37 CFR 1.52(d).

NOTE: A non-English oath or declaration in the form provided or approved by the PTO need not be translated. 37 CFR 1.69(b).

☒ English

☐ non-English

☐ the attached translation is a verified translation. 37 CFR 1.52(d).

8. Assignment

☐ An assignment of the invention to

☐ is attached. A separate ☐ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or ☐ FORM PTO 1595 is also attached.

☐ will follow.

NOTE: "If an assignment is submitted with a new application, send two separate letters—one for the application and one for the assignment." Notice of May 4, 190 (1114 O.G. 77-78).

WARNING: A newly executed "CERTIFICATE UNDER 37 CFR 3.73(b)" must be filed when a continuation-in-part application is filed by an assignee. Notice of April 30, 1993. 1150 O.G. 62-64.

9. Certified Copy

Certified copy of application

Country

Appln. No.

Filed

from which priority is claimed

☐ is attached.

☐ will follow.

NOTE: The foreign application forming the basis for the claim for priority must be referred to in the oath or declaration. 37 CFR 1.55(a) and 1.63.

NOTE: This item is for any foreign priority for which the application being filed directly relates. If any parent U.S. application or International Application from which this application claims benefit under 35 U.S.C. 120 is itself entitled to priority from a prior foreign application then complete item 18 on the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

10. Fee Calculation (37 CFR 1.16)

A. ☒ Regular Application

Claims as Filed

Number Filed	Number Extra	Rate	Basic Fee 37 CFR 1.16(a) \$760.00
Total Claims (37 CFR 1.16(c))	3 - 20 = 0 x \$	18.00	
Independent Claims (37 CFR 1.16(b))	1 - 3 = 0 x \$	78.00	
Multiple dependent claim(s), if any (37 CFR 1.16(d))	+ \$	260.00	

- ☐ Amendment cancelling extra claims enclosed.
- ☐ Amendment deleting multiple-dependencies enclosed.
- ☐ Fee for extra claims is not being paid at this time.

NOTE: *If the fees for extra claims are not paid on filing they must be paid or the claims cancelled by amendment, prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency. 37 CFR 1.16(d).*

Filing Fee Calculation \$ 760.00

- B. ☐ Design application
(\$310.00 — 37 CFR 1.16(f))

Filing Fee Calculation \$

- C. ☐ Plant application
(\$480.00 — 37 CFR 1.16(g))

Filing Fee Calculation \$

11. Small Entity Statement(s)

- ☒ Verified Statement(s) that this is a filing by a small entity under 37 CFR 1.9 and 1.27 is(are) attached or has been filed.

Filing Fee Calculation (50% of **A**, **B** or **C** above) \$ 380.00

NOTE: *Any excess of the full fee paid will be refunded if a verified statement and a refund request are filed within 2 months of the date of timely payment of a full fee. 37 CFR 1.28(a).*

12. Request for International-Type Search (37 CFR 1.104(d)) (Complete, if applicable)

- ☐ Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

13. Fee Payment Being Made At This Time

- ☐ Not Enclosed

- ☐ No filing fee is to be paid at this time. *(This and the surcharge required by 37 CFR 1.16(e) can be paid subsequently.)*

- ☒ Enclosed

☒ basic filing fee \$ 380.00

- ☐ Recording assignment
(\$40.00; 37 CFR 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION.")
- ☐ Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached.
(\$130.00; 37 CFR 1.47 and 1.17(h)) \$
- ☐ For processing an application with a specification in a non-English language.
(\$130.00; 37 CFR 1.52(d) and 1.17(k)) \$
- ☐ Processing and retention fee
(\$130.00; 37 CFR 1.53(d) and 1.21(l))
- ☐ Fee for international-type search report
(\$40.00; 37 CFR 1.21(e)). \$

NOTE: 37 CFR 1.21(l) establishes a fee for processing and retaining any application which is abandoned for failing to complete the application pursuant to 37 CFR 1.53(d) and this, as well as the changes to 37 CFR 1.53 and 1.78, indicate that in order to obtain the benefit of a prior U.S. application, either the basic filing fee must be paid or the processing and retention fee of §1.21(l) must be paid within 1 year from notification under §53(d).

Total fees enclosed \$ 380.00

14. Method of Payment of Fees

- ☒ Check in the amount of \$ 380.00
 - ☐ Charge Account No. 12-0425 in the amount of \$
- A duplicate of this transmittal is attached.

NOTE: Fees should be itemized in such a manner that it is clear for which purpose the fees are paid. 37 CFR 1.22(b).

15. Authorization to Charge Additional Fees

WARNING: If no fees are to be paid on filing, the following items should not be completed.

WARNING: Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.

- ☒ The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. 12-0425.
 - ☒ 37 CFR 1.16(a), (f) or (g) (filing fees)
 - ☐ 37 CFR 1.16(b), (c) and (d) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 CFR 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.

- ☒ 37 CFR 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)
- ☒ 37 CFR 1.17 (application processing fees)

WARNING: While 37 CFR 1.17(a), (b), (c) and (d) deal with extensions of time under §1.136(a), this authorization should be made only with the knowledge that: "Submission of the appropriate extension fee under 37 C.F.R. 1.136(a) is to no avail unless a request or petition for extension is filed." (Emphasis added). Notice of November 5, 1985 (1060 O.G. 27)

- ☒ 37 CFR 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 CFR 1.311(b))

NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 CFR 1.311(b).

NOTE: 37 CFR 1.28(b) requires "Notification of any change in loss of entitlement to small entity status must be filed in the application ... prior to paying, or at the time of paying, ... issue fee". From the wording of 37 CFR 1.28(b): (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.

16. Instructions As To Overpayment

- ☒ credit Account No. 12-0425
☐ refund

WILLIAM R. EVANS
c/o LADAS & PARRY
26 WEST 61st STREET
NEW YORK, N.Y. 10023

Reg. No.

Tel. No. Reg. No. 25,858 (212) 708-1945



Signature of Attorney

Ladas & Parry

☐ **Incorporation by reference of added pages**

(Check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an international application entering the U.S. stage as a continuation, divisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED)

- ☐ Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed

Number of pages added ____

- ☐ Plus Added Pages for Papers Referred to in Item 4 Above

Number of pages added ____

- ☐ Plus "Assignment Cover Letter Accompanying New Application"

Number of pages added ____

☒ **Statement Where No Further Pages Added**

(If no further pages form a part of this Transmittal, then end this Transmittal with this page and check the following item:)

- ☒ This transmittal ends with this page.

Attorney's Docket No. _____

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:
Serial No.:
Filed:
For:

Group No.:
Examiner:

☐ Patent No.:

Issued:

*NOTE: Insert name(s) of inventor(s) and title also for patent. Where statement is with respect to a maintenance fee payment also insert application serial number and filing date and add Box M. Fee to address.

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(c-f) and 1.27(b-d))

With respect to the invention described in

☒ the specification filed herewith.

☐ application serial no. 0 / _____, filed _____.

☐ patent no. _____, issued _____.

I. IDENTIFICATION OF DECLARANT AND RIGHTS AS A SMALL ENTITY

I hereby declare that I am

(complete either (a), (b), (c) or (d) below):

(a) Independent Inventor

☒ a below named independent inventor and that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code to the Patent and Trademark Office.

(b) Non-inventor Supporting a Claim By Another

☐ making this verified statement to support a claim by

_____ and
for a small entity status for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code and I hereby declare that I would qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under 41(a) and (b) of Title 35, United States Code, if I had made the above identified invention.

(c) Small Business Concern

☐ the owner of the small business concern identified below:

☐ an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF CONCERN _____

ADDRESS OF CONCERN _____

_____ and

that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying

(Verified Statement (Declaration) Claiming Small Entity Status (37 CFR 1.9 (c-f) and 1.27 (b-d)) [7-10]—page 1 of 4)

reduced fees under Section 41(a) and (b) of the Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

(d) Non-Profit Organization

- ☐ an official empowered to act on behalf of the nonprofit organization identified below:

NAME OF ORGANIZATION _____

ADDRESS OF ORGANIZATION _____

TYPE OR ORGANIZATION

- ☐ UNIVERSITY OR OTHER INSTITUTION OF HIGHER EDUCATION
- ☐ TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 USC 501(a) and 501(c) (3))
- ☐ NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA
(NAME OF STATE _____)
(CITATION OF STATUTE _____)
- ☐ WOULD QUALIFY AS TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 USC 501(a) and 501(c) (3)) IF LOCATED IN THE UNITED STATES OF AMERICA
- ☐ WOULD QUALIFY AS NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA IF LOCATED IN THE UNITED STATES OF AMERICA
(NAME OF STATE _____)
(CITATION OF STATUTE _____)

and that the nonprofit organization identified above qualifies as a nonprofit organization as defined in 37 CFR 1.9(e) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code.

II. OWNERSHIP OF INVENTION BY DECLARANT

I hereby declare that rights under contract or law remain with and/or have been conveyed to the above identified

- ☒ person ☐ concern ☐ organization
(item (a) or (b) above) (item (c) above) (item (d) above)

EXCEPT, that if the rights held are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held (1) by any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, (2) any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or (3) a non-profit organization under 37 CFR 1.9(e).

- ☐ no such person, concern, or organization
- ☐ person, concerns or organizations listed below*

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27).

(Verified Statement (Declaration) Claiming Small Entity Status (37 CFR 1.9 (c-f) and 1.27 (b-d)) [7-10]—page 2 of 4)

FULL NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

FULL NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

III. ACKNOWLEDGEMENT OF DUTY TO NOTIFY PTO OF STATUS CHANGE

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

IV. DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

V. SIGNATURES

(complete only (e) or (f) below)

(e)

NOTE: All inventors must sign the verified statement

Name of Inventor Gi Yong YOO

Date April 14, 1999

Signature of Inventor

G. Y. YOO

Name of Inventor _____

Date _____

Signature of Inventor _____

Name of Inventor _____

(Verified Statement (Declaration) Claiming Small Entity Status (37 CFR 1.9 (c-f) and 1.27 (b-d)) [7-10]—page 3 of 4)

Date _____

Signature of Inventor

(add lines for any additional inventors who must sign)

or

(f)

NOTE: The title of the person signing on behalf of a concern or non-profit organization should be specified.

NAME OF PERSON SIGNING _____

TITLE OF PERSON _____

(if signing on behalf of a concern or non-profit organization)

ADDRESS OF PERSON SIGNING _____

SIGNATURE _____ DATE _____

TOBACCO SUBSTITUTE COMPOSITION

BACKGROUND OF THE INVENTION

5 1. Field of the Invention

The present invention relates to a tobacco substitute composition, and in particular to a tobacco substitute composition which has an excellent effect for stopping smoking and does not include a nicotine, and a preparation method thereof.

10 2. Description of the Conventional Art

In the conventional art, as a substitute of a tobacco, a gum or a patch type product which contains a small amount of nicotine is known.

However, since this product contains a nicotine, there is a smoking prohibition phenomenon due to a nicotine. Therefore, it is impossible to implement a desired effect for
15 stopping smoking.

As a tobacco substitute which does not contain a nicotine and is formed of the same type as the tobacco, there are U.S. Patents of 4,506,684 and 4,719,929 which use celluloses. In addition, in the U.S. Patent of 4,813,438, a product made of a bran, a soybean, and a mesquite which are used as a main composition is described. In the Japanese Patent Laid-open No. Pyung
20 1-273574, a product which is made of a coffee powder or leaves of a tea plant is described. In addition thereto, various products which use an organic compound as a substitute are known. In particular, in the U.S. Patent 4,600,025, a 2-methyl-5(pyrrolidinomethyl)thiazol and a 2-methyl-5-(piperidinomethyl)thiazol are described

However, since the above-described products have a flavor and taste different from a
25 tobacco, these products failed to attract a smoker's interest.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a tobacco substitute composition which has a taste very similar to the take of a tobacco for thereby
5 implementing a smoking stopping effect.

In order to achieve the above object, it is provided a tobacco substitute composition which is formed of 80-90 weight percent of an eucomonia ulmoides, 1-10 weight percent of a glycyrrhiza, and 1-10 weight percent of a perilla frutescens.

In another example of the present invention, a flavoring material such as a sodium
10 chloride, a glycerol, a sweetener, a spices, etc. which is generally added to a tobacco may be used.

Additional advantages, objects and other features of the invention will be set forth in part in the description which follows and in part will become apparent to those having ordinary skill in the art upon examination of the following or may be learned from practice
15 of the invention. The objects and advantages of the invention may be realized and attained as particularly pointed out in the appended claims as a result of the experiment compared to the conventional arts.

DETAILED DESCRIPTION OF THE INVENTION

20 As a result of experiments implemented using various plants, we have founded out that the leaves of eucommia ulmoides has a taste which is most similar to the taste of the tobacco. The eucommia ulmoides is generally used as a therapy material for a beriberi disease, a hypertension, an insomnia, a lumbago, a joint disease, etc. In addition, the
25 eucommia ulmoides is used as a nutrition material, and a stamina enhancing material with its

characteristic of non-toxicity. The effective components of the fully dried eucommia ulmoides are as follows: 2.2g of moisture, 12.3g of protein, 7.0g of paper, 10.1g of fiber, 13.8g of powder, 193mg of phosphorus, 95.4mg of Fe, 2.5g of calcium, 3.99mg of natrium, 330mg of magnesium, 1.09g of kalium, 17.8ppm of zinc, 5.52ppm of copper, 5.97g of tannin, 205mg of chlorophyll, 26.3mg of tocopherol, 58mg of vitamin C, and 480mg of organic acid based on the total weight of 100g.

If the eucommia ulmoides exceeds the above-described amount, the taste of the composition is not soft with its small amount of glycyrrhiza glabra. If the eucommia ulmoides is used by an amount less than the above-described amount, it is impossible to obtain the taste of the tobacco.

Here, the glycyrrhiza glabra is added. The glycyrrhiza glabra serves to discharge a sputum and smooth the airway of the breath. Therefore, the glycyrrhiza glabra overcomes the side effects which may occur due to the smoking. In the present invention, 1-10 weight percent of glycyrrhiza glabra is used. Since the glycyrrhiza glabra has 40-50 times sweetness of the sugar.

In the present invention, about 1-10 weight percent of perilla frutescens which has a curing effect for cough is added. Since the perilla frutescens has 200-300 times sweetness of the sugar, the perilla frutescens serves as a sweetener and an antiseptic.

In the composition according to the present invention, a flavoring material which is added to the tobacco such as a sodium chloride, glycerol, sweetener, spices, etc. may be added. As a sweetener, a sugar, honey, an artificial sweetener, etc. may be added. In addition, as a flavoring material, a peppermint oil is used.

The present invention will be illustrated by the following examples.

Example 1: Preparation of tobacco substitute composition

5g of glycyrrhiza glabra, 5g of periila frutescens, and 3g of glycerol were added to 90g of the leaves of the eucommia ulmoides, and the resulted mixtures were cut by 1mm and then were uniformly mixed. The tobacco substitute composition was formed in the same shape of the tobacco. As a result of the analysis of the component of the smoke of the product, the amount of the nicotine was 0mg/cig, and the amount of the tar was 14.4mg/cig.

Example 2: Clinical demonstration

This clinical demonstration was conducted by the Wonkwang University Hospital located in Mokpo, Korea. In this example, 27 smokers were selected and were suggested to smoke the composition of example 1 for three weeks.

The result of the above-described clinical demonstration was shown in the following table 1.

[Table 1]

Degree	Number of patients	Ratio
1. Recovered	20 persons	74.07%
2. Good	3 persons	11.11%
3. Moderate	2 persons	7.41%
4. Slight	1 person	3.70%
5. Unchanged	1 person	3.70%
Sum	27 persons	99.99%

- * 1. Recovered: Smoking was completely quitted.
- 2. Good: More than 75% smoking amount was decreased.
- 3. Moderate: More than 50% smoking amount was decreased.
- 4. Slight: More than 25% smoking amount was decreased.

5. Unchanged: No effect of smoking suppression effect.

The other symptoms of the demonstrators were founded out as follow: No side effects: 13 persons, nausea: 5 persons, phlegm: 4 persons, dizziness: 2 persons, headache: 1 person, and a concentration decrease: 1 person. The above-described symptoms were known as a smoking prohibition effect, not the side effects.

Although the preferred examples of the present invention have been disclosed for illustrative purposes, those skilled in the art will appreciate that various modifications, additions and substitutions are possible, without departing from the scope and spirit of the invention as recited in the accompanying claims.

WHAT IS CLAIMED IS:

1. A tobacco substitute composition comprised of 80-90 weight percent of
eucommia ulmoides, 1-10 weight percent of glycyrrhiza glabra, and 1-10 weight percent of
5 periila frutescens.

2. The composition of claim 1, further comprising a glycerol.

10 3. The composition of claim 1, further comprising a peppermint oil.

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ABSTRACT OF THE DISCLOSURE

The tobacco substitute composition according to the present invention is comprised of 80-90 weight percent of eucommia ulmoides, 1-10 weight percent of glycyrrhiza glabra, and 1-10 weight percent of periila frutescens. In the present invention, a flavoring material which is generally added to the composition of a tobacco such as a sodium chloride, glycerol, sweetener, spices, etc. may be added.

Attorney's Docket No. _____

PATENT

COMBINED DECLARATION AND POWER OF ATTORNEY

(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,
CONTINUATION OR C-I-P)

As a below named inventor, I hereby declare that:

TYPE OF DECLARATION

This declaration is of the following type: (check one applicable item below)

- ☒ original
☐ design
☐ supplemental

NOTE: If the declaration is for an International Application being filed as a divisional, continuation or continuation-in-part application, do not check next item; check appropriate one of last three items.

- ☐ national stage of PCT

NOTE: If one of the following 3 items apply, then complete and also attach ADDED PAGES FOR DIVISIONAL, CONTINUATION OR C-I-P.

- ☐ divisional
☐ continuation
☐ continuation-in-part (C-I-P)

INVENTORSHIP IDENTIFICATION

WARNING: If the inventors are each not the inventors of all the claims, an explanation of the facts, including the ownership of all the claims at the time the last claimed invention was made, should be submitted.

My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

TOBACCO SUBSTITUTE COMPOSITION

SPECIFICATION IDENTIFICATION

the specification of which: (complete (a), (b) or (c))

- (a) ☒ is attached hereto.
(b) ☐ was filed on _____ as ☐ Serial No. 0 / _____
or ☐ Express Mail No., as Serial No. not yet known _____
and was amended on _____ (if applicable).

NOTE: Amendments filed after the original papers are deposited with the PTO which contain new matter are not accorded a filing date by being referred to in the declaration. Accordingly, the amendments involved are those filed with the application papers or, in the case of a supplemental declaration, are those amendments claiming matter not encompassed in the original statement of invention or claims. See 37 CFR 1.67.

- (c) ☐ was described and claimed in PCT International Application No. _____ filed on _____ and as amended under PCT Article 19 on _____ (if any).

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information

- ☒ which is material to patentability as defined in 37, Code of Federal Regulations, § 1.56

(also check the following items, if desired)

- ☐ and which is material to the examination of this application, namely, information where there is a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent, and
- ☐ In compliance with this duty there is attached an information disclosure statement in accordance with 37 CFR 1.98.

PRIORITY CLAIM (35 U.S.C. § 119)

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

(complete (d) or (e))

- (d) ☒ no such applications have been filed.
- (e) ☐ such applications have been filed as follows.

NOTE: Where item (c) is entered above and the International Application which designated the U.S. itself claimed priority check item (e), enter the details below and make the priority claim.

**A. PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119**

COUNTRY (OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 37 USC 119
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>
			<input type="checkbox"/> YES NO <input type="checkbox"/>

**ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

NOTE: If the application filed more than 12 months from the filing date of this application is a PCT filing forming the basis for this application entering the United States as (1) the national stage, or (2) a continuation, divisional, or continuation-in-part, then also complete ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR C-I-P APPLICATION for benefit of the prior U.S. or PCT application(s) under 35 U.S.C. § 120.

POWER OF ATTORNEY

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration number)

PAUL B. WEST, 18947
JOSEPH H. HANDELMAN, 26179
JOHN RICHARDS, 31053
JOHN J. CRYSTAL, 26360
RICHARD J. STREIT, 25765
ALAN K. ROBERTS, 17777
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IAIN C. BAILLIE, 24090
THOMAS F. PETERSON, 24790
RICHARD P. BERG, 28145
JULIAN H. COHEN, 20302
WILLIAM R. EVANS, 25858

(check the following item, if applicable)

- ☐ Attached as part of this declaration and power of attorney is the authorization of the above-named attorney(s) to accept and follow instructions from my representative(s).

SEND CORRESPONDENCE TO

DIRECT TELEPHONE CALLS TO:
(Name and telephone number)

LADAS & PARRY
26 WEST 61ST STREET
NEW YORK, NEW YORK 10023

(212)708-1930

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE(S)

NOTE: Carefully indicate the family (or last) name as it should appear on the filing receipt and all other documents.

Full name of sole or first inventor

Gi Yong YOO
(GIVEN NAME) (MIDDLE INITIAL OR NAME) FAMILY (OR LAST NAME)

Inventor's signature G. Y. Yoo

Date April 14, 1999 Country of Citizenship Rep. of Korea

Residence 103-1703, Ssangbangwool APT., 130-3, Beon 3-dong, Kangbuk-ku, Seoul

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Full name of second joint inventor, if any

(GIVEN NAME) (MIDDLE INITIAL OR NAME) FAMILY (OR LAST NAME)

Inventor's signature

Date Country of Citizenship

Residence

Post Office Address

Full name of third joint inventor, if any

(GIVEN NAME) (MIDDLE INITIAL OR NAME) FAMILY (OR LAST NAME)

Inventor's signature _____

Date _____ Country of Citizenship _____

Residence _____

Post Office Address _____

CHECK PROPER BOX(ES) FOR ANY OF THE FOLLOWING ADDED PAGE(S) WHICH
FORM A PART OF THIS DECLARATION

☐ Signature for fourth and subsequent joint inventors. Number of pages added

* * *

☐ Signature by administrator(trix), executor(trix) or legal representative for deceased or incapacitated inventor. Number of pages added _____

* * *

☐ Signature for inventor who refuses to sign or cannot be reached by person authorized under 37 CFR 1.47. Number of pages added _____

* * *

☐ Added page for signature by one joint inventor on behalf of deceased inventor(s) where legal representative cannot be appointed in time (37 CFR 1.47).

* * *

☐ Added pages to combined declaration and power of attorney for divisional, continuation, or continuation-in-part (C-I-P) application.

☐ Number of pages added _____

* * *

☐ Authorization of attorney(s) to accept and follow instructions from representative.

* * *

(If no further pages form a part of this Declaration, then end this Declaration with this page and check the following item:)

☒ This declaration ends with this page.